

## EAST Search History

| Ref # | Hits | Search Query   | DBs  | Default Operator | Plurals | Time Stamp       |
|-------|------|--|--|------------------|---------|------------------|
| L1    | 19   | (drill adj bit) near3 size near3 (pipe string)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2007/02/15 16:22 |
| L2    | 0    | (drill adj bit) near3 size near3 (pipe string) near3 (larger bigger)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2007/02/15 16:23 |
| L3    | 5    | bit near3 size near3 (pipe string) near3 (larger bigger)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2007/02/15 16:24 |
| L4    | 36   | bit with relative with size with (pipe string)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2007/02/15 16:25 |
| L5    | 2479 | (175/57,262,257,284,61).CCLS.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT          | OR               | OFF     | 2007/02/15 16:49 |
| S1    | 3    | ("4391547" "5078650" "5244050").PN.  | US-PGPUB;<br>USPAT   | OR               | ON      | 2006/03/03 16:20 |
| S2    | 4    | ((("6233524") or ("5560437"))).PN.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT          | OR               | OFF     | 2006/03/03 16:20 |
| S3    | 13   | ("2086682"   "3007750"   "3137354"   "3329222"   "4287957"   "4397363"   "4619335"   "4886131").PN. OR ("5244050").URPN. | US-PGPUB;<br>USPAT;<br>USOCR                                   | OR               | ON      | 2006/03/03 19:08 |
| S4    | 15   | ("2179010"   "2284580"   "3052838"   "3112442"   "3429387"   "3700049"   "5244050"   "5589825").PN. OR ("6269891").URPN. | US-PGPUB;<br>USPAT;<br>USOCR                                   | OR               | ON      | 2006/03/03 19:59 |

## EAST Search History

|     |       |  |   |    |     |                  |
|-----|-------|--|---|----|-----|------------------|
| S5  | 126   | mwd and "175"/\$.ccls. and steering and deviated   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2006/03/04 14:08 |
| S6  | 40842 | "175"/\$.ccls. drilling and (retrievable near3 rotor)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2006/03/04 13:50 |
| S7  | 2     | "175"/\$.ccls. and drilling and (retrievable near3 rotor)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2006/03/04 14:44 |
| S8  | 180   | mwd and "175"/\$.ccls. and steering and (rotary near3 drilling)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2006/03/04 14:09 |
| S9  | 37    | runia.in.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2006/03/04 14:32 |
| S10 | 15    | ("2179010"   "2284580"   "3052838"   "3112442"   "3429387"   "3700049"   "5244050"   "5589825").PN. OR ("6269891").URPN. | US-PGPUB;<br>USPAT;<br>USOCR                          | OR | ON  | 2006/03/04 14:34 |
| S11 | 3     | "175"/\$.ccls. and drilling and (retrievable near6 rotor)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2006/03/04 14:44 |
| S12 | 7     | "175"/\$.ccls. and drilling and (retrievable same rotor)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2006/03/04 15:45 |
| S14 | 2321  | (175/57,262,257,284,61).CCLS.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2006/08/03 21:28 |

## EAST Search History

|     |      |   |   |    |     |                  |
|-----|------|---|---|----|-----|------------------|
| S15 | 13   | (US-20020088648-\$).did. or<br>(US-6948572-\$ or US-3052838-\$ or<br>US-3112442-\$ or US-5931239-\$ or<br>US-5560437-\$ or US-6233524-\$ or<br>US-4391547-\$ or US-5244050-\$ or<br>US-3700049-\$ or US-5078650-\$ or<br>US-5667023-\$ or US-6340063-\$).<br>did. | US-PGPUB;<br>USPAT                                    | OR | ON  | 2006/08/03 20:58 |
| S16 | 7    | S15 and diameter  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2006/08/03 20:58 |
| S17 | 2386 | (175/57,262,257,284,61).CCLS.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2006/08/03 21:28 |
| S18 | 65   | S17 and (@pd>"20060304")  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2007/02/15 16:49 |